

## AMENDMENTS

In the claims:

*2* 19. (Three times Amended) A method of determining the presence of one or more target analytes in one or more samples comprising:

a) adding said one or more samples to a first substrate comprising a plurality of assay locations, such that said one or more samples is contained at a plurality of said assay locations;

b) contacting said one or more samples with a second substrate comprising:

i) a plurality of array locations, each array location comprising a plurality of discrete sites, wherein at least one assay location is in fluid contact with at least one array location; and

ii) a population of microspheres comprising at least a first and a second subpopulation each comprising a bioactive agent, wherein said microspheres are distributed on at least one of said array locations such that said discrete sites each contain no more than one microsphere; and

c) determining the presence or absence of said target analyte.

*19* 36. (Amended) A method of determining the presence of one or more target analytes in one or more samples comprising:

a) adding said one or more samples to a first substrate comprising a plurality of assay locations, such that said one or more samples is contained at a plurality of said assay locations;

b) contacting said one or more samples with a second substrate comprising:

i) a composite array comprising a plurality of array locations, each array location comprising a plurality of discrete sites, wherein at least one assay location is in fluid contact with at least one array location; and

ii) a population of microspheres comprising at least a first and a second subpopulation each comprising a bioactive agent, wherein said microspheres are distributed on said surface such that said discrete sites each contain no more than one microsphere; and